### **Amendments to the Specification**

1. (currently amended) A compound represented by <u>a formula + below</u> or a pharmaceutically acceptable salt <del>or a prodrug derivative thereof:</del>

wherein;

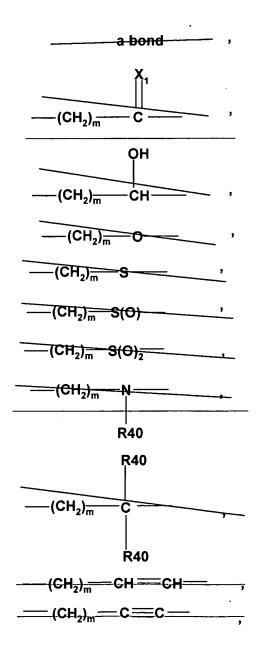
R and R' are independently  $C_1$ - $C_5$  alkyl,  $C_4$ - $C_5$ -fluoroalkyl, or together R and R' form-a substituted or unsubstituted, saturated or unsaturated carbocyclic ring having from 3 to 8 carbon atoms;

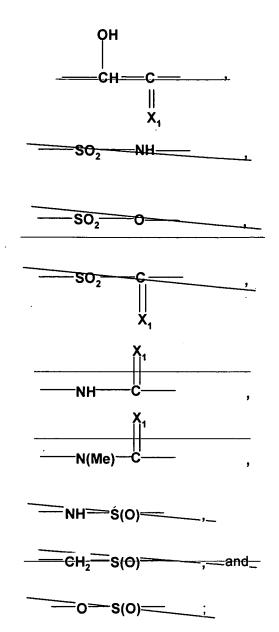
R<sub>PH</sub> is hydrogen or methyl;

R1 and R2 are independently selected from the group-consisting of hydrogen or, halo, C1-C5 alkyl; C4-C5 fluoroalkyl, O-C4-C5-alkyl, S-C4-C5 alkyl, O-C4-C5 fluoroalkyl, CN, NO2, acetyl, S-C4-C5-fluoroalkyl, C2-C5 alkenyl, C3-C5 eycloalkyl, and C3-C5 eycloalkenyl;

and L2 is a divalent linking group selected from: a bond and

and L<sub>2</sub> are divalent linking groups independently selected from the group consisting of





where m is 0, 1 or 2,  $X_{\perp}$  is oxygen or sulfur, and each R40 is independently hydrogen,

## C<sub>1</sub>-C<sub>5</sub> alkyl, or C<sub>1</sub>-C<sub>5</sub> fluoroalkyl;

## R<sub>BOH</sub> is

3-methyl-3-hydroxypentyl, 3-methyl-3-hydroxypentenyl, 3-methyl-3-hydroxypentynyl, 3-ethyl-3-hydroxypentenyl, 3-ethyl-3-hydroxypentenyl,

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3-ethyl-3-hydroxy-4-methylpentyl,
3-ethyl-3-hydroxy-4-methylpentenyl,
3-ethyl-3-hydroxy-4-methylpentynyl,
3-propyl-3-hydroxypentyl,
3-propyl-3-hydroxypentenyl,
3-propyl-3-hydroxypentynyl,
1-hydroxy-2-methyl-1-(methylethyl)propyl,
1 hydroxycycyclopentenyl,
1-hydroxycyclohexenyl,
1-hydroxycycloheptenyl,
1 hydroxycyclooctenyl,
1-hydroxycyclopropyl,
1-hydroxycyclobutyl,
1-hydroxycyclopentyl, or
1-hydroxycyclohexyl:
1-hydroxycycloheptyl, or
1 hydroxycyclooctyl;
```

### provided, however, that when

## R<sub>BOH</sub> is

```
3-methyl-3-hydroxypentyl,
3-methyl-3-hydroxypentenyl,
3-methyl-3-hydroxypentynyl,
3-ethyl-3-hydroxypentenyl,
3-ethyl-3-hydroxypentynyl,
3-ethyl-3-hydroxy-4-methylpentyl,
3-ethyl-3-hydroxy-4-methylpentenyl,
3-ethyl-3-hydroxy-4-methylpentenyl,
3-propyl-3-hydroxypentyl,
3-propyl-3-hydroxypentyl,
3-propyl-3-hydroxypentynyl, or
1-hydroxy-2-methyl-1-(methylethyl)propyl;
```

then L<sub>1</sub> and L<sub>2</sub> combine as a bond; and

# R<sub>C</sub> is

-CO<sub>2</sub>H, -<del>CO<sub>2</sub>Me,</del> -CO2Et,  $-C(O)CH_2S(O)Me$ .  $-C(O)CH_2S(O)Et$ .  $-C(O)CH_2S(O)_2Me$ -C(O)CH<sub>2</sub>S(O)<sub>2</sub>Et,  $-C(O)CH_2CH_2S(O)Me$ . -C(O)CH<sub>2</sub>CH<sub>2</sub>S(O)Et,  $-C(O)CH_2CH_2S(O)_2Me$  $-C(O)CH_2CH_2S(O)_2Et$  $-C(O)CHMeCH_2CO_2H$ -C(O)C(O)OH;  $-C(O)C(O)NH_2$ -C(O)C(O)NHMe,  $-C(O)C(O)NMe_{2}$  $-C(O)NH_2$ .  $C(O)NMe_2$ , -C(O)NHS(O)Me, -C(O)NHSO2Me, -C(O) NH-5 tetrazolyl, -C(O)NMe 5 tetrazolyl, -C(O)NHS(O)Me, -C(O)NHS(O)Et. -C(O)NHSO2Me,

-C(O)NHSO<sub>2</sub>Et,

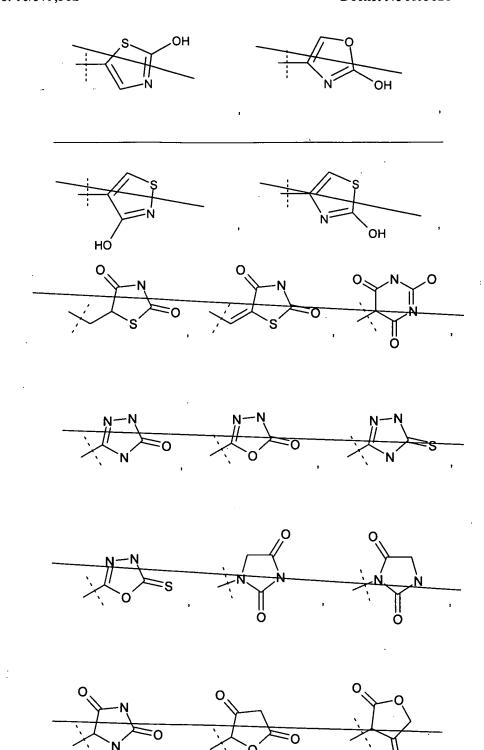
- -C(O)NHS(O)iPr,
- -C(O)NHSO2iPr,
- -C(O)NHS(O)nPr.
- -C(O)NHSO2nPr,
- -C(O)NHCH<sub>2</sub>S(O)Me,
- -C(O)NHCH2S(O)Et,
- -C(O)NHCH<sub>2</sub>SO<sub>2</sub>Me;
- -C(O)NHCH2SO2Et,
- -C(O)NHCH2CH2S(O)Me,
- -C(O)NHCH2CH2S(O)Et,
- -C(O)NHCH2CH2SO2Me,
- -C(O)NHCH2CH2SO2Et,
- $-C(O)NH_{2}$
- -C(O)NMe2;
- -C(O)NH-CH<sub>2</sub>-C(O)OH,
- -C(O)NH-CH(Me)-C(O)OH,
- -C(O)NH-CH(F)-C(O)OH,
- $-C(O)NH-CH(CF_2)-C(O)OH_7$
- -C(O)NH-CH(OH)-C(O)OH,
- -C(O)NH-CH(cyclopropyl)-C(O)OH.
- $-C(O)NH-C(Me)_2-C(O)OH$ ,
- $-C(O)NH-C(Me)_2-C(O)OH$
- -C(O)NH-CF(Me)-C(O)OH;
- -C(O)NH-C(Me)(CF<sub>3</sub>)-C(O)OH,
- -C(O)NH-C(Me)(OH)-C(O)OH,
- -C(O)NH-C(Me)(cyclopropyl-C(O)OH,
- -C(O)NMe-CH<sub>2</sub>-C(O)OH,
- -C(O)NMe-CH(Me)-C(O)OH,
- -C(O)NMe-CH(F)-C(O)OH.
- -C(O)NMe-CH(CF2)-C(O)OH.
- -C(O)NMe CH(OH) C(O)OH,
- -C(O)NMe-CH(cyclopropyl) C(O)OH,

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-C(O)NMe-C(Me)<sub>2</sub>-C(O)OH, or
-C(O)NMe-CF(Me)-C(O)OH,
-C(O)NMe-C(Me)(CF<sub>2</sub>)-C(O)OH.
-C(O)NMe C(Me)(OH) C(O)OH,
-C(O)NMe-C(Me)(cyclopropyl)-C(O)OH,
-CH<sub>2</sub>-CO<sub>2</sub>H;
-CH<sub>2</sub>-5-tetrazolyl,
-CH<sub>2</sub>-CO<sub>2</sub>Me.
-CH2CO2Et,
-CH2NHS(O)Me,
-CH2NHS(O)Et,
-CH2NHSO2Me,
-CH2NHSO2Et,
-CH2NHS(O)iPr.
-CH2NHSO2iPr,
-CH2NHS(O)nPr,
-CH2NHSO2nPr,
-CH2NHCH2CH2SO2CH3;
-CH2NH(CH2CO2H),
-CH2N(C(O)Me)(CH2CO2H),
-CH<sub>2</sub>-N-pyrrolidin-2-one,
-CH<sub>2</sub> (1-methylpyrrolidin 2-one-3-yl).
-CH_2S(O)Me
-CH<sub>2</sub>S(O)Et,
-CH_2S(O)_2Me
-CH<sub>2</sub>S(O)<sub>2</sub>Et,
-CH<sub>2</sub>S(O)iPr,
-CH_2S(O)_2iPr
-CH<sub>2</sub>S(O)nPr,
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-CH<sub>2</sub>S(O)<sub>2</sub>nPr,

- -CH<sub>2</sub>CO<sub>2</sub>H, CH<sub>2</sub>C(O)NH<sub>2</sub>,
- -CH2C(O)NMe2;
- -CH<sub>2</sub>C(O)NHMe,
- -CH<sub>2</sub>C(O) N-pyrrolidine,
- -CH<sub>2</sub>S(O)<sub>2</sub>Me,
- -CH<sub>2</sub>S(O)Me.
- -CH(OH) CO2H.
- -CH(OH)C(O)NH<sub>2</sub>;
- -CH(OH)C(O)NHMe,
- -CH(OH)C(O)NMe<sub>2</sub>,
- -CH(OH)C(O)NEt2;
- -CH2CH2CO2H,
- -CH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>Me,
- -CH2CH2CO2Et.
- -CH2CH2C(O)NH2-
- -CH<sub>2</sub>CH<sub>2</sub>C(O)NHMe.
- -CH<sub>2</sub>CH<sub>2</sub>C(O)NMe<sub>2</sub>
- -CH<sub>2</sub>CH<sub>2</sub>-5 tetrazolyl,
- -CH<sub>2</sub>CH<sub>2</sub>S(O)<sub>2</sub>Me,
- -CH<sub>2</sub>CH<sub>2</sub>S(O)Me,
- -CH2CH2S(O)2Et;
- -CH2CH2S(O) Et,
- -CH<sub>2</sub>CH<sub>2</sub>S(O)iPr,
- -CH2CH2S(O)2iPr,
- -CH<sub>2</sub>CH<sub>2</sub>S(O)nPr.
- -CH2CH2S(O)2nPr,
- $-CH_2CH_2S(O)NH_2$
- -CH<sub>2</sub>CH<sub>2</sub>S(O)NHMe.
- -CH<sub>2</sub>CH<sub>2</sub>S(O)NMe<sub>2</sub>,

- $-CH_2CH_2S(O)_2NH_2$
- $-CH_2CH_2S(O)_2NHMe_{+}$
- -CH<sub>2</sub>CH<sub>2</sub>S(O)<sub>2</sub>NMe<sub>2</sub>.
- -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>S(O)Me,
- -CH2CH2CH2S(O)Et,
- $-\text{CH}_2\text{CH}_2\text{CH}_2\text{S}(\Theta)_2\text{Me},$
- -CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>S(O)<sub>2</sub>Et,
- - $CH(Me)CH_2C(O)OH$ .
- $-C(Me)_2CH_2C(O)OH_7$
- <del>-SO</del>3H,
- -5-tetrazolyl,



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### 2. (canceled)

3. (currently amended) A compound represented by formula (II) or a pharmaceutically acceptable salt or an ester prodrug derivative thereof:

$$R_{BOH} = R_{C}$$

$$R_{BOH} = R_{C}$$

$$R_{C} = R_{C}$$

wherein;

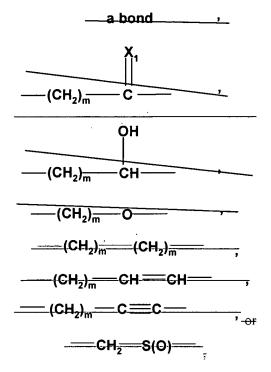
R and R' are independently methyl or ethyl;

R1 and R2 are independently hydrogen, halo, -CF3, methyl- or ethyl: or cyclopropyl;

L<sub>1</sub> is a divalent linking group selected from: a bond a bond, — 
$$(CH_2)_m$$
 —  $C$  — , —  $(CH_2)_m$  —  $(CH_2)$ 

and-L<sub>2</sub> is a divalent linking group selected from: a bond and

and-L2 are independently-divalent linking groups independently selected from



where m is 0 or 1;

# R<sub>BOH</sub> is selected from

1-hydroxycyclopentenyl.

1-hydroxycyclohexenyl,

1-hydroxycyclopentyl, or

1-hydroxycyclohexyl, and

### RC is a group selected from

-CO2H-

-<del>CO</del>2Me.

-<del>CO<sub>2</sub>Et,</del>

 $-C(O)NH_2$ 

-C(O)NMe<sub>2</sub>.

- -C(O)NH-CH<sub>2</sub>-C(O)OH,
- -C(O)NH-CH(Me)-C(O)OH,
- -C(O)NH-CH(F)-C(O)OH,
- -C(O)NH-CH(CF<sub>2</sub>)-C(O)OH:
- -C(O)NH-CH(OH)-C(O)OH.
- -C(O)NH-CH(cyclopropyl) C(O)OH,
- -C(O)NH-C(Me)2-C(O)OH,
- $-C(O)NH-C(Me)_2-C(O)OH$
- -C(O)NH-CF(Me)-C(O)OH.
- -C(O)NH-C(Me)(CF<sub>2</sub>)-C(O)OH,
- -C(O)NH-C(Me)(OH)-C(O)OH,
- -C(O)NH-C(Me)(cyclopropyl-C(O)OH,
- -C(O)NMe-CH<sub>2</sub>-C(O)OH,
- -C(O)NMe-CH(Me)-C(O)OH, or
- -C(O)NMe-CH(F)-C(O)OH,
- -C(O)NMe-CH(CF3)-C(O)OH,
- -C(O)NMe-CH(OH)-C(O)OH:
- -C(O)NMe-CH(cyclopropyl) C(O)OH.
- $-C(O)NMe-C(Me)_2-C(O)OH$ ,
- -C(O)NMe-CF(Me)-C(O)OH.
- -C(O)NMe-C(Me)(CF<sub>2</sub>)-C(O)OH.
- -C(O)NMe-C(Me)(OH)-C(O)OH,
- -C(O)NMe-5-tetrazolyl,
- -C(O)NMe-C(Me)(cyclopropyl)-C(O)OH, or
- -C(O) NH 5 tetrazolyl.
- 4. (currently amended) A compound represented by formula (III) or a pharmaceutically acceptable salt or an ester prodrug derivative thereof:

$$R_{BOH}$$
 $R_{1}$ 
 $R_{2}$ 
 $R_{1}$ 
 $R_{2}$ 
 $R_{1}$ 
 $R_{2}$ 
 $R_{1}$ 
 $R_{2}$ 

wherein;

R and R' are independently methyl or ethyl; R1 and R2 are independently hydrogen. halo, -CF3, methyl. or ethyl: or ethyl RBOH is selected from 3-methyl-3-hydroxypentyl, 53-methyl-3-hydroxypentenyl, 3-methyl-3-hydroxypentynyl, 3-ethyl-3-hydroxypentyl, 3-ethyl-3-hydroxypentenyl, 3-ethyl-3-hydroxypentynyl, 3-propyl-3-hydroxypentyl, 3-propyl-3-hydroxypentenyl, 3-propyl-3-hydroxypentynyl, 3-ethyl-3-hydroxy-4-methylpentyl, 3-ethyl-3-hydroxy-4-methylpentenyl, 3-ethyl-3-hydroxy-4-methylpentynyl, or 1-hydroxy-2-methyl-1-(methylethyl)propyl; and R<sub>C</sub> is a group selected from -CO<sub>2</sub>H. -<del>CO<sub>2</sub>Me,</del> -<del>CO</del>2<del>Et.</del> -C(O)NH2.  $-C(O)NMe_{2}$ -C(O)NH-CH<sub>2</sub>-C(O)OH, -C(O)NH-CH(Me)-C(O)OH,

-C(O)NH-CH(OH)-C(O)OH,
-C(O)NH-CH(cyclopropyl)-C(O)OH.

C(O)(VIT CH(Cyclopiopy)) C(O)O

-C(O)NH-C(Me)<sub>2</sub>-C(O)OH,

-C(O)NH-CH(F)-C(O)OH, -C(O)NH-CH(CF<sub>2</sub>)-C(O)OH.

 $-C(O)NH-C(Me)_2-C(O)OH$ ,

-C(O)NH-CF(Me)-C(O)OH,

-C(O)NH-C(Me)(CF<sub>3</sub>)-C(O)OH.

-C(O)NH-C(Me)(OH)-C(O)OH.

-C(O)NH-C(Me)(cyclopropyl-C(O)OH,

-C(O)NMe-CH<sub>2</sub>-C(O)OH,

-C(O)NMe-CH(Me)-C(O)OH,

-C(O)NMe-CH(F)-C(O)OH.

-C(O)NMe-CH(CF<sub>2</sub>)-C(O)OH,

-C(O)NMe-CH(OH)-C(O)OH,

-C(O)NMe-CH(cyclopropyl)-C(O)OH,

-C(O)NMe-C(Me)2-C(O)OH, and

-C(O)NMe-CF(Me)-C(O)OH,

-C(O)NMe-C(Me)(CF<sub>2</sub>)-C(O)OH,

-C(O)NMe-C(Me)(OH)-C(O)OH;

-C(O)NMe 5 tetrazolyl.

-C(O)NMe-C(Me)(cyclopropyl)-C(O)OH, or

-C(O)-NH-5-tetrazolyl.

5. (currently amended) The A compound represented by formula (AA-1) to (AA-33) or a pharmaceutically acceptable salt or prodrug derivative thereof:

AA-1)

AA-2)

AA-3)

AA-4)

AA-5)

AA-6)

AA-7)

AA-8)

AA-9)

AA-10)

AA-11)

AA-12)

AA-13)

AA-14)

AA-15)

AA-16)

AA-17)

AA-18)

AA-19)

AA-20)

AA-21)

AA-22)

AA-23)

AA-24)

AA-25)

· AA-26)

AA-27)

AA-28)

AA-29)

AA-30)

AA-31)

AA-32)

AA-33)

6. (currently amended) The A compound represented by formula (BB-1) to (BB-33) or a pharmaceutically acceptable salt or prodrug derivative thereof:

BB-1)

BB-2)

BB-3)

BB-4)

BB-5)

BB-6)

BB-7)

BB-8)

BB-9)

BB-10)

BB-11)

BB-12)

BB-13)

BB-14)

BB-15)

BB-16)

BB-17)

BB-18)

BB-19)

BB-20)

BB-21)

BB-22)

BB-23)

BB-24)

BB-25)

BB-26)

BB-27)

BB-28)

BB-29)

BB-30)

BB-31)

BB-32)

BB-33)

7. (currently amended)  $\frac{1}{2}$  Compound represented by formula (CC-1) to (CC-1)

44) or a pharmaceutically acceptable salt or prodrug derivative thereof:

CC-1)

CC-2)

CC-3)

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CC-4)

CC-5)

CC-6)

CC-7)

CC-8)

CC-9)

· CC-10)

CC-11)

CC-12)

CC-13)

CC-14)

CC-15)

CC-16)

CC-17)

CC-18)

CC-19)

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CC-20)

CC-21)

CC-22)

CC-23)

CC-24)

CC-25)

CC-26)

CC-27)

CC-28)

CC-29)

CC-30)

CC-31)

CC-32)

CC-33)

CC-34)

CC-35)

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CC-36)

CC-37)

CC-38)

CC-39)

CC-40)

CC-41)

CC-42)

CC-43)

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CC-44)

$$HO \longrightarrow O \longrightarrow OH$$

8. (Currently Amended) The compound according to claim 1 represented by the formula:

or a pharmaceutically acceptable salt or prodrug derivative thereof.

9. (Currently Amended) The A compound according to claim 1 represented by the formula:

or a pharmaceutically acceptable salt or prodrug-derivative thereof.

- 10. (currently amended) The prodrug derivative of the  $\underline{A}$  compound according to of claim 1 wherein the a carboxylic acid group of  $R_C$  is esterified toprodrug is a methyl ester; ethyl ester; N,N-diethylglycolamido ester; or morpholinylethyl ester  $\underline{group}$ .
- 11. (previously presented) The salt derivative of the compound of claim 1 wherein the salt is sodium or potassium.

12. (withdrawn) A pharmaceutical formulation comprising the compound of claim 1 together with a pharmaceutically acceptable carrier or diluent.

13-16. (canceled)

- 17. (withdrawn) A method of treating a mammal to prevent or alleviate the pathological effects of Acne, Actinic keratosis, Alopecia, Alzheimer's disease, Bone maintenance in zero gravity, Bone fracture healing, Breast cancer, Chemoprovention of Cancer, Crohn's disease, Colon cancer, Type I diabetes, Host-graft rejection, Hypercalcemia, Type II diabetes, Leukemia, Multiple sclerosis, Myelodysplastic syndrome, Insufficient sebum secretion, Osteomalacia, Osteoporosis, Insufficient dermal firmness, Insufficient dermal hydration, Psoriatic arthritis, Prostate cancer, Psoriasis, Renal osteodystrophy, Rheumatoid arthritis, Scleroderma, Skin cancer, Systemic lupus erythematosus, Skin cell damage from, Mustard vesicants, Ulcerative colitis, Vitiligo, or Wrinkles; wherein the method comprises administering a pharmaceutically effective amount of at least one compound of claim 1.
  - 18. (withdrawn) The method of claim 17 for the treatment of psoriasis.
  - 19. (withdrawn) The method of claim 17 for the treatment of osteoporosis.
  - 20-21. (canceled)
- 22. (withdrawn) A method of treating or preventing disease states mediated by the Vitamin D receptor, wherein a mammal in need thereof is administered a pharmaceutically effective amount of the compound of Claim 1.

23-28. (canceled)